Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A display apparatus comprising:

a matrix display device comprising a plurality of pixels, an optical state of each pixel being defined by particles moving in a fluid between electrodes dependent on a value and a polarity of a drive voltage and a duration of a drive period during which the drive voltage is present across the pixel;

a driver for supplying a sequence of drive voltages across the pixel during corresponding successive drive periods, wherein each of the sequence of drive voltages and drive periods are applied while the pixel is being driven by input image data that produces an image that is ~~viewable~~fitting the input image data; and

a DC-balancing circuit comprising a controller for determining a time-average value for each pixel, used to adjust at least one of the value of the drive voltage and the duration of the corresponding drive period while the pixel is being driven by the input image data that produces the image that is fitting the input

image data, to obtain a substantially zero value of the time-average value for each consecutive field of the pixel,

wherein the at least one of the value of the drive voltage and the duration of the corresponding drive period are adjusted in steps corresponding to sub-fields of the field of the pixel.

2. (Previously presented) The display apparatus as claimed in claim 1, wherein the DC-balancing circuit further comprises a memory, and wherein the controller is adapted for summing in the memory, for the drive period of each pixel, a number indicating a multiplication of the duration of said drive period and the value of the drive voltage supplied during said drive period to said pixel, and adapting the value of the at least one of the value of the drive voltage and the duration of the drive period to obtain a value of the number being as near-to zero as possible, the number corresponding to the time-average value.

3. (Previously presented) The display apparatus as claimed in claim 1, further comprising:

a control circuit for driving the matrix display device in a sub-field mode wherein grey scales corresponding to the sub-field

of each pixel are determined by a number of sub-fields receiving the drive voltage during the corresponding field, and wherein the drive period is the duration of the number of sub-fields receiving the drive voltage.

4. (Previously presented) The display apparatus as claimed in claim 2, wherein the controller is adapted for comparing an absolute value of the number with a threshold number to supply a reset pulse to the pixel when an absolute value of the number for the pixel surpasses the threshold number.

5. (Previously presented) The display apparatus as claimed in claim 2, wherein the display device further comprises:

a temperature sensor for sensing a temperature of the pixel, and wherein the controller is adapted for modifying the number dependent on the temperature.

6. (Previously presented) The display apparatus as claimed in claim 2, wherein the controller is adapted for modifying the number non-linearly dependent on the value of the drive voltage.

7. (Previously presented) The display apparatus as claimed in claim 1, wherein a desired coloration of the pixel, after an initial period of time required to obtain the desired coloration, is substantially independent on the duration of the drive period, and wherein the controller is adapted for controlling the duration of the drive period to be longer than the initial period when the number indicates that a polarity of the drive voltage is opposite to a plurality of an initial drive voltage corresponding to the initial period.

8. (Previously presented) The display apparatus as claimed in claim 7, wherein the controller is adapted for controlling the duration of the drive period not to exceed the initial period when the initial period causes the number to change sign.

9. (Previously presented) The display apparatus as claimed in claim 1, wherein a desired coloration of the pixel, after an initial period of time required to obtain the desired coloration, is substantially independent on the duration of the drive period, and wherein the controller is adapted for controlling the duration of the drive period to be substantially identical to the initial

period when the number indicates that a polarity of the drive voltage is the same as a plurality of an initial drive voltage corresponding to the initial period.

10. (Previously presented) The display apparatus as claimed in claim 7, wherein the display device is an electrophoretic display, and wherein the pixel comprises two switching electrodes and a further electrode, the driver being adapted for supplying the sequence of drive voltages to the two switching electrodes and the further electrode controlling intermediate optical states of the pixel.

11. (Previously presented) The display apparatus as claimed in claim 7, wherein the display device is an electrophoretic display, and wherein the pixel comprises at least two electrodes, and wherein the driver is adapted for supplying the sequence of drive voltages between the at least two electrodes for setting a grey scale of the pixel by providing a drive voltage lower than a usually applied drive voltage which sets a grey level by modulating the duration of the drive period during which the usually applied drive voltage is present.

12. (Previously presented) The display apparatus as claimed in claim 1, wherein the display device is an electrophoretic display.

13. (Currently amended) A method of driving a matrix display device comprising a plurality of pixels, an optical state of each pixel being defined by particles moving in a fluid between electrodes dependent on a value and a polarity of a drive voltage and a duration of a drive period during which the drive voltage is present across the pixel, the method comprising:

supplying a sequence of drive voltages across each pixel during corresponding successive drive periods, wherein each of the sequence of drive voltages and drive periods are applied while the pixel is being driven by input image data that produces an image that is ~~viewable~~fitting the input image data; and

adjusting at least one of the drive voltage value and the corresponding drive period duration for each pixel to obtain a substantially zero value of a time-average value for each field of each pixel while the pixel is being driven by the input image data that produces the image that is fitting the input image data, based

on a product of a drive voltage value and a corresponding drive period duration of a previous consecutive field of the pixel,

wherein the at least one of the drive voltage value and the corresponding drive period duration are adjusted in steps corresponding to sub-fields of the field of the pixel while the pixel is being driven by the input image data that produces the image that is fitting the input image data.